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Coast Guard

■

MANUFACTURER REQUIREMENTS AND SAFETY STANDARDS

Notice of Proposed Rule Making

DEPARTMENT OF TRANSPORTATION

Coast Guard

[33 CFR Part 172]

[CGD 72-60PH]

MANUFACTURER REQUIREMENTS

Certification of Boats and Equipment

The Coast Guard is considering issuing regulations governing the certification of boats and associated equipment that comply with U.S. Coast Guard boat safety standards and regulations and the identification of boat hulls. Any interested person may submit written data, views, or arguments concerning this notice to U.S. Coast Guard (CMC/82), Room 8234, 400 Seventh Street SW., Washington, DC 20590. All communications received before May 31 1972, will be considered before action is taken on the proposed regulations. Each person submitting comments should include his name and address, identify this notice (CGD 72-60) and give reasons and supporting data for any recommendations. All comments will be available for examination in Room 8234. An informal public hearing to receive comments of interested persons on this proposal will be held on May 17, 1972, in Room 8332 at 9:30 a.m. Each person who intends to make a statement is requested to notify the U.S. Coast Guard (CMC/82), before May 17, 1972.

These rules are proposed under the authority of the Federal Boat Safety Act of 1971 (85 Stat. 213), which was delegated to the Commandant of the Coast Guard on October 5, 1971 (36 F.R. 19593).

The applicability of the Act and these regulations to a particular boat depends not only on the kind of use to which it is put but also where it is used. Most of the provisions of the Act do not apply to waters that are not subject to the jurisdiction of the United States, such as lakes within the boundaries of a State that are not connected to the navigable waters of the United States. However, the applicability of the provisions in section 12(a) of the Act are expanded, by section 4(b), to include boats moving or intended to be moved in interstate commerce. Therefore, it is expected that the proposed hull identification requirements would apply to almost all boats manufactured in the United States or imported after the effective date, and the certification requirements would apply to almost all boats under 20 feet with further exceptions stated in the standards and regulations with which boats must conform. These standards and regulations are the subject of Coast Guard Notice CGD 72-61.

Subpart B of proposed Part 172 concerns certification of compliance with Coast Guard regulations and standards. Section 12(a) of the Act requires, among other things, that:

(a) No person shall—

(1) Manufacture, construct, assemble, introduce, or deliver for introduction in interstate commerce, or import into the United States, or if engaged in the business of selling or distributing boats or associated equipment, sell or offer for sale, any boat, associated equipment, or component thereof to be sold for subsequent assembly, unless—

(A) It conforms with regulations and standards prescribed under this Act, or

(B) It is intended solely for export, and so labeled, tagged, or marked on the boat or equipment and on the outside of the container, if any, which is exported.

(2) Affix, attach, or display a seal, label, plate, insignia, or other device indicating or suggesting compliance with Federal safety standards, on, in, or with a boat or item of associated equipment, which is false or misleading;

In the Act, "boat" means any vessel—

(a) Manufactured or used primarily for noncommercial use; or

(b) Leased, rented, or chartered to another for the latter's noncommercial use;or

(c) Engaged in the carrying of six or fewer passengers.

It should be noted that, in the Act and in these proposed regulations, when the word "manufacturer" is used it means any person engaged in—

(1) The manufacture, construction, or assembly of boats or associated equipment; or

(2) The manufacture or construction of components for boats and associated equipment to be sold for subsequent assembly; or

(3) The importation into the United States for sale of boats, associated equipment, or components thereof.

The effect of the Act is to prohibit persons who build boats, persons who import boats, and persons engaged in the business of distributing and selling boats from allowing the sale to the boating public of boats that do not conform with Coast Guard regulations and standards.

The proposed certification requirements are intended to prevent sales of boats to the boating public without a determination having been made and certified to that the boat or equipment conforms to the standards and regulations. Under section 7 of the Act, the Coast Guard may require or permit the display of seals, labels, plates, insignia, or other devices for the purpose of certifying or evidencing compliance with Federal safety regulations and standards for boats and associated equipment. Sections 172.7 and 172.23 propose the Coast Guard's labeling requirements.

Proposed § 172.9 would allow those persons who only sell or distribute boats to affix the certification label and makes the certification of compliance with Coast Guard standards in place of the actual manufacturer. This recognizes the industry practice of "private labeling" whereby companies sell under their own name products manufactured by another.

Section 12(a)(1) of the Act exempts boats or associated equipment intended for export from conforming with standards and regulations issued under the Act. Proposed § 172.11 would exempt boats and associated equipment intended for export from the labeling requirements of proposed Part 172.

Since the construction or assembly of a boat may take considerable time, the selection of the date of certification, which must appear on the label, is the subject of proposed § 172.15(c). The Act, in section 5(b)(2), provides that a regulation or standard may not compel substantial alteration of a boat or item of associated equipment the construction or manufacture of which is commenced before the effective date of the regulation, except where there is substantial risk of personal injury. Therefore, under this proposal, the date selected for certifying that a boat or item of equipment meets the applicable regulations and standards need not be later than the date its construction or assembly is commenced. However, under this proposal, a date later than the commencement of construction or assembly may be selected as long as the completed boat or equipment conforms with the regulations and standards in effect on the date selected.

The latest day that may be selected for the date of manufacture is practically limited to the date the boat or equipment leaves the control of the person who is required by the proposed regulation to affix the certification label. Because of the possibility of change in the regulations or standards after delivery by a manufacturer and the prohibition in section 12(b) of the Act against a false or misleading seal, label, plate, insignia, or other device indicating or suggesting compliance with Federal safety standards, the proposed regulation would not allow a date to be selected that is after the boat or equipment leaves the place of construction, assembly or import for the purpose of sale. This proposal would allow the manufacturer maximum flexibility in certifying that his boat or associated equipment is built to standards which were put into effect after the date on which construction or assembly began.

Under proposed Part 180, which is the subject of notice CGD 72-61, some boats may display stability warning labels to comply with certain stability requirements. Proposed § 172.15 would require that the certification label indicate that these boats do not meet the safe loading standard in proposed Part 180.

The purpose of proposed Subpart C, Identification of Hulls, is to require identification markings on all boat hulls constructed in, or imported into, the United States after September 30, 1972. These markings would identify the person or company responsible for the manufacture of a hull in compliance with the standards, provide a serial number for that hull different from the number on all other hulls, and indicate when the hull was manufactured. The identity of manufacturer of the hull is needed for the purposes of section 15 of the Federal Boat Safety Act of 1971, which requires manufacturers to notify purchasers, dealers, and distributors of defects in boats that create a substantial risk of personal injury to the public and of boats

that fail to comply with a standard or regulation prescribed under section 5 of the Act. The identity of the manufacturer of a hull is needed by the Coast Guard to notify the manufacturer, under section 15(e) of the Act, when a defect or failure to comply is reported to or discovered by the Coast Guard in the hull so that the manufacturer of the hull can comply with the notice to purchasers, dealers, and distributors, requirements in section 15(a). A serial number identifying each hull is necessary for use in identifying all the individual boats of the kind in which a defect is discovered and in finding and notifying their owners.

The date of manufacture is needed not only to assist in identifying boats that may have a defect but also to identify boats to which boat safety standards and regulations prescribed by the Coast Guard under section 5 of the Act apply. As regulations and standards are adopted to implement the Act, the date of manufacture of a hull will be needed to determine whether it was built before or after the effective date of each new regulation or standard that may apply to it. The identity of specific standards applicable to a boat is also needed by manufacturers, distributors, dealers, and others to provide safety standard information to consumers. The identification of individual hulls is also needed for use in efficient State boat registration programs and for use in recovering stolen boats.

As regulations and standards are adopted for associated equipment, similar identification marking requirements may be proposed to further implement sections 12 and 15 of the Act. However, no standards for associated equipment have been proposed as of the date of this notice, and the identification marking requirements proposed in this notice would apply only to hulls.

Proposed § 172.31 indicates the address a manufacturer may write to obtain a manufacturer identification. The Coast Guard is preparing a list of known manufacturers and assigning tentative manufacturer identifications. Assignment of the manufacturer's identification will begin shortly after publication of the final rule.

The Boating Safety Advisory Council has been consulted and its opinions and advice have been considered in the formulation of these proposed regulations. The transcript of the proceedings of the meeting of the Boating Safety Advisory Council at which these regulations were discussed is available for examination in Room 6240, U.S. Coast Guard Headquarters, Department of Transportation Headquarters Building, 400 Seventh Street SW., Washington, D.C. 20590. The minutes of the meeting are available from the Executive Director, Boating Safety Advisory Council at this address.

In consideration of the foregoing, it is proposed that a new Part 172 be added to Title 33 of the Code of Federal Regulations to read as follows:

PART 172—MANUFACTURER REQUIREMENTS

Subpart A—General

Sec.
172.1 Purpose and applicability.
172.3 Definitions.

Subpart B—Manufacturer Certification of Compliance

172.5 Purpose and applicability.
172.7 Compliance certification label required.
172.9 Affixing labels.
172.11 Exceptions to label requirement.
172.13 Removal of labels.
172.15 Contents of label.
172.17 Label numbers and letters.
172.19 Construction of labels.

Subpart C—Identification of Hulls

172.21 Purpose and applicability.
172.23 Hull identification numbers required.
172.25 Hull identification number format.
172.27 Additional characters in hull identification number.
172.29 Hull identification number display.
172.31 Manufacturer identification assigned.

AUTHORITY: The provisions of this Part 172 issued under secs. 5, 7, and 39 of the Federal Boat Safety Act of 1971, Public Law 92-75, 85 Stat. 213, 215, 216, 228 (Aug. 10, 1971); 49 CFR 1.46(o)(1).

Subpart A—General

§ 172.1 Purpose and applicability.

This part prescribes requirements for the certification of boats and associated equipment and identification of boats to which section 4 of the Federal Boat Safety Act of 1971 applies.

§ 172.3 Definitions.

As used in this part—

(a) "Manufacturer" means any person engaged in—

(1) The manufacture, construction, or assembly of boats or associated equipment; or

(2) The importation into the United States for sale of boats, associated equipment, or components thereof.

(b) "Boat" means any vessel manufactured or used primarily for noncommercial use; leased, or rented, or chartered to another for the latter's noncommercial use; or engaged in the carrying of six or fewer passengers.

(c) "Associated equipment" means—

(1) Any system, part, or component of a boat as originally manufactured or any similar part or component manufactured or sold for replacement, repair, or improvement of such system, port or component;

(2) Any accessory or equipment for, or appurtenance to, a boat; and

(3) Any marine safety article, accessory, or equipment intended for use by a person on board a boat; but

(4) Excluding radio equipment.

(d) "Date of certification" means the date on which a boat or item of associated equipment is certified to comply with all applicable U.S. Coast Guard boat safety standards in effect on that date.

(e) "Date of manufacture" means the month and year during which construction or assembly of a boat or item or associated equipment begins.

(f) "Model year" means the period beginning August 1 of any year and ending on July 31 of the following year. Each model year is designated by the year in which it ends.

Subpart B—Manufacturer Certification of Compliance

§ 172.5 Purpose and applicability.

This subpart prescribes requirements for the certification of boats and associated equipment to which section 4 of the Federal Boat Safety Act of 1971 applies and to which a boat safety standard prescribed in Part 180 of this chapter applies.

§ 172.7 Compliance certification label required.

Unless there is affixed to it a certification label that contains the information required by § 172.15—

(a) No person who manufactures, constructs, or assembles a boat or associated equipment may deliver that boat or equipment for the purpose of sale;

(b) No person may import into the United States any boat or associated equipment; and

(c) No person engaged in the business of selling or distributing boats or associated equipment may sell or offer for sale any boat or associated equipment.

§ 172.9 Affixing labels.

(a) Each manufacturer of a boat or item of associated equipment to which a standard or regulation prescribed in Part 180 of this chapter applies shall affix a certification label that contains the information required by § 172.15 to that boat or equipment before it—

(1) Leaves the place of manufacture for the purpose of sale; or

(2) Is imported.

(b) The manufacturer of a boat that is sold to a person engaged in the business of selling or distributing boats need not affix a certification label if the person engaged in the business of selling or distributing boats affixes the certification label before the boat leaves the place of manufacture.

§ 172.11 Exceptions to labeling requirement.

(a) This part does not apply to boats or associated equipment intended solely for export, and so labeled, tagged, or marked on the boat or equipment and on the outside of the container, if any, which is exported.

(b) If an item of associated equipment is so small that a certification label that meets the requirements in § 172.15 cannot be affixed to it, a certification label that contains the information required by § 172.15 may be printed on the smallest container in which the item is packed or on a slip packed with the item.

§ 172.13 Removal of labels.

No person may remove a label required by this part or remove or alter any information on a label required by this part, unless authorized by the Commandant.

§ 172.15 Contents of labels.

Each label required by § 172.7 must contain—

(a) The name and address of the manufacturer or person who determines that the boat or associated equipment complies with the standards prescribed by Part 180 of this chapter.

(b) Except as provided in paragraph (d) of this chapter, the words "This (insert "Boat" or "Equipment") Complies with U.S. Coast Guard Boat Safety Standards in effect on (insert date of certification as prescribed in paragraph (c) of this section)."

(c) Date of certification must be no earlier than the date on which construction or assembly began and no later than the date on which the boat or item of associated equipment leaves the place of manufacture or assembly or import for the purposes of sale.

(d) If a boat displays the stability warning label required by § 180.23 of this chapter, the words "Except load capacity" must be inserted after the words "Boat Safety Standards" and before "In Effect" in the statement prescribed by paragraph (b).

§ 172.17 Label numbers and letters.

Letters and numbers on each label must—

(a) Be no less than one-eighth of an inch in height; and

(b) Contrast with the basic color of the label, or for date of certification, be permanently stamped, engraved, or embossed on the label.

§ 172.19 Construction of label.

(a) Each label must be made of material that can withstand exposure to water, oil, salt spray, direct sunlight, heat, cold, and wear expected in normal use of the boat or item of associated equipment without deterioration of legibility.

(b) Each label must be made of material that shows visible traces of the alteration or removal of information on the label.

Subpart C—Identification of Hulls

§ 172.21 Purpose and applicability.

This subpart prescribes the requirements for identification of hulls of boats the construction or assembly of which is begun after September 30, 1972, and to which section 4 of the Federal Boat Safety Act of 1971 applies.

§ 172.23 Hull identification numbers required.

Except as provided in paragraph (b) of this section—

(a) Each manufacturer of a boat hull, or person engaged in the selling or distributing of boats shall identify that hull with a hull identification number that meets the requirements of this subpart.

(b) Each person who imports a boat or boat hull shall identify that hull with a hull identification number that meets the requirements of this subpart, unless the manufacturer of that hull or boat has already identified the hull with a hull identification that meets the requirement of this part.

(c) Each manufacturer of a boat hull or each person who imports a boat or boat hull shall not assign the same first eight characters of a hull identification number to more than one boat hull.

§ 172.25 Hull identification number format.

Each hull identification number required by § 172.23 must consist of 12 characters as follows—

(a) The first three characters must consist of a manufacturer identification assigned under § 172.31.

(b) Characters 4 through 8 must be assigned by the manufacturer and must be letters of the English alphabet or Arabic numerals or both, except the letters I, O, and Q.

(c) Characters 9 through 12 must indicate the date of certification. The characters must be either—

(1) Arabic numerals with characters 9 and 10 indicating the month and characters 11 and 12 indicating the last two numerals of the year; or

(2) A combination of Arabic numerals and letters of the English alphabet with character 9 indicated as "M," characters 10 and 11 the last two numerals of the model year, and character 12 the month of the model year. The first month of the model year, August, must be designated by the letter "A," the second month, September, by the letter "B," and so on until the last month of the model year, July.

§ 172.27 Additional characters in hull identification number.

A manufacturer may display additional characters after the 12 characters required by § 172.25 if they are separated from the hull identification number by a hyphen.

§ 172.29 Hull identification number display.

(a) The hull identification number must be carved, burned, stamped or embossed on the outboard side of the transom above the waterline of the boat in such a way that alteration, removal, or replacement would be obvious and evident.

(b) The characters of the hull identification number must be no less than one-fourth of an inch in height.

§ 172.31 Manufacturer identification assigned.

(a) Each person required by § 172.23 to affix a hull identification number may request a manufacturer identification from the Commandant (BBC), 400 Seventh Street SW., Washington, DC 20590. There is no charge for the assignment.

This proposal is made under the authority of sections 5, 7, and 39 of the Federal Boat Safety Act of 1971, Public Law 92-75, 85 Stat. 213, 215, 216, 228 (Aug. 10, 1971); 49 CFR 1.46(o)(1) (36 F.R. 19593).

Dated: April 17, 1972.

A. C. WAGNER,
Rear Admiral, U.S. Coast Guard, Chief, Office of Boating Safety.

[FR Doc.72-6023 Filed 4-21-72;8:45 am]

[33 CFR Part 180]

[CGD 72-61 PH]

BOAT SAFETY STANDARDS

Loading, Powering, Emergency Flotation, and Marking of Capacity

The Coast Guard is considering adopting regulations for safe loading, safe powering, emergency flotation, and marking of capacity information on certain boats. Any interested person may submit written data, views, or arguments to U.S. Coast Guard (CMC/82), Room 8234, 400 Seventh Street SW., Washington, DC 20590. All communications received before May 31, 1972, will be considered before action is taken on the proposed regulations. Each person submitting comments should include his name and address, identify this notice (CGD 72-61) and give reasons and supporting data for any recommendations. All comments will be available for examination in Room 8234. An informal public hearing to receive comments of interested persons on the proposed regulations will be held on May 17, 1972, in Room 8332 at 9:30 a.m. Each person who wishes to make a statement is requested to notify the U.S. Coast Guard (CMC/82) before May 15, 1972.

These proposed regulations do not apply to sailboats, canoes, kayaks, and inflatable boats. Regulations and standards for these boats are under consideration and may be the subject of future rule making.

These proposed regulations apply to boats manufactured, constructed, or assembled by any person, including backyard amateurs and occasional builders.

The proposed safety standards and regulations are part of a continuing effort by the Coast Guard to reduce the number of drownings associated with recreational boating. Drownings, which account for over 90 percent of all boating deaths, are most often the result of the sinking or capsizing of boats less than 20 feet long. These proposed regulations would require that these boats meet standards for loading, powering, and flotation and require the display of loading and powering information on each boat.

Proposed Subpart C, Safe Loading, is directed at the prevention of capsizings, the major cause of boating fatalities. Almost three-fourths of these capsizing fatalities involved open motorboats or rowboats less than 20 feet long. In addition, nine out of 10 deaths occurring because of overloading are on open motorboats and rowboats less than 20 feet long.

The capacity information that must be displayed on a boat contains a limit on the number of persons the boat may carry as well as the total weight of persons and gear. The limit on the number of persons is determined by a live load test, in proposed §§ 180.39 through 180.43, that requires 60 percent of the weight of persons to be distributed on one side of the boat at the outboard extremity of each passenger carrying area. This live load test is needed to account for the capability of part of the weight of the passenger load being concentrated at one side of a boat when persons move about the boat. The 60 percent factor for this part of the weight is the factor used by the American Boat and Yacht Council.

The application of these proposed standards to boats may require design changes. The regulations would allow boats not meeting these standards to continue to be built until August 1, 1973, if they are labeled with the stability warning label in § 180.23.

The Coast Guard has for many years shared with the Canadian Government and the boating industry a concern over the consequences of overpowering small boats. Jointly conducted boat powering tests over the past decade have demonstrated generally that there is a definite maximum horsepower for each boat above which its handling characteristics become erratic and often dangerous. In recognition of this, the boating industry associations of the United States and Canada have established a program for determining the maximum safe horsepower and for the voluntary display of this information on outboard boats. It is believed that the widespread acceptance of this voluntary program has been instrumental in holding the number of overpowering casualties at the present level.

The proposed standard for outboard horsepower capacity is also based on the standard of the American Boat and Yacht Council except that a "test course" method to establish maximum horsepower is not included in the proposed regulation at this time. While a performance type standard such as the test course method may be desirable, the test course method does not ensure consistent results because it depends on the skill of the driver, placement of loading, course conditions, and many other factors. Work is continuing toward the development of an objective performance standard for determining boat horsepower capacity.

The proposed flotation standard in Subpart D reflects the current industry practice for emergency flotation. In the period from 1968–70, there were 218 deaths, 51 injuries, and over $1 million in property damage resulting from sinkings of boats. A boat which will float when flooded gives its occupants a greater chance of survival because it is available to grasp until assistance arrives. For search and rescue purposes, it is far easier to find a boat than individuals in the water.

Section 5(b) of the Act requires, among other things, that a regulation specify an effective date which is not earlier than 180 days from the date of issuance, unless there exists a boating safety hazard so critical as to require an earlier effective date. The Coast Guard considers capacity requirements to be so critical as to require their adoption as soon as possible. Therefore, the Coast Guard anticipates completing this rule making action and publishing a final rule by July 1, 1972, and making the capacity marking requirements effective on October 1, 1972. The planned effective date for the flotation standard is August 1, 1973.

The Boating Safety Advisory Council has been consulted and its opinions and advice have been considered in the formulation of these proposed regulations. The transcript of the proceedings of the meeting of the Boating Safety Advisory Council at which these regulations were discussed is available for examination in Room 6240, U.S. Coast Guard Headquarters, Department of Transportation Headquarters Building, 400 Seventh Street SW., Washington, D.C. 20590. The minutes of the meeting are available from the Executive Director, Boating Safety Advisory Council at this address.

These regulations are proposed under the authority of the Federal Boat Safety Act of 1971 (Public Law 92–75, 85 Stat. 213). The authority and reponsibilities vested in the Secretary of the Department of Transportation by this Act were delegated to the Commandant of the Coast Guard on October 5, 1971 (36 F.R. 19593).

In consideration of the foregoing, the Coast Guard proposes to amend Chapter I of Title 33 of the Code of Federal Regulations by adding a new Part 180 to read as follows:

PART 180—BOATS AND ASSOCIATED EQUIPMENT

Subpart A—General

Sec.
180.1 Purpose and applicability.
180.3 Definitions.

Subpart B—Display of Capacity Information

180.21 Applicability.
180.23 Capacity marking required.
180.25 Display of markings.
180.27 Construction of markings.

Subpart C—Safe Loading

180.31 Applicability.
180.33 Maximum weight capacity: inboard and inboard-outdrive boats.
180.35 Maximum weight capacity: outboard boats.
180.37 Maximum weight capacity: boats without mechanical propulsion.
180.39 Persons capacity: inboard and inboard-outdrive boats.
180.41 Persons capacity: outboard boats.
180.43 Persons capacity: boats without mechanical propulsion.

Subpart D—Safe Powering

180.51 Applicability.
180.53 Horsepower capacity.

Subpart E—Flotation

180.61 Applicability.
180.63 Quantity of flotation required.
180.65 Kind of flotation.
180.67 Method for determining quantity of flotation.

AUTHORITY: The provisions of this Part 180 issued under secs. 5, 7, and 39 of the Federal Boat Safety Act of 1971, Public Law 92–75, 85 Stat. 213, 215, 216, 228 (Aug. 10, 1971); 49 CFR 1.46(o)(1).

Subpart A—General

§ 180.1 Purpose and applicability.

This part prescribes standards and regulations for boats and associated equipment to which section 12 of the Federal Boat Safety Act of 1971 applies and to which certification requirements in Part 172 of this chapter apply.

§ 180.3 Definitions.

(a) "Beam" means the maximum transverse distance between the outer sides of the hull excluding fenders, joiner strips, and other extensions.

(b) "Boat" means any vessel manufactured or used primarily for noncommercial use; leased, rented, or chartered to another for the latter's noncommercial use; or engaged in the carrying of six or fewer passengers.

(c) "Length" means the straight line horizontal distance between the intersection of the stem and stern profiles with the sheer excluding fenders or other extensions.

(d) "Mono-hull boat" means a boat on which the line of intersection of the water surface and the boat at any operating draft forms a single closed curve. For example, a catamaran, trimaran, or pontoon boat is not a mono-hull boat.

(e) "Sailboat" means a boat designed or intended to use sails as the primary means of propulsion.

(f) "Sheer" means the fore and aft curve in a vertical plane of the topmost line in a vessel's side.

(g) "Vessel" includes every description of watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation on the water.

Subpart B—Display of Capacity Information

§ 180.21 Applicability.

This subpart applies to mono-hull boats less than 20 feet in length, except sailboats, canoes, kayaks, and inflatable boats.

§ 180.23 Capacity marking required.

(a) Except as provided in paragraph (b) of this section, each boat must be marked in the manner prescribed in §§ 180.25 and 180.27 with the maximum weight capacity and persons capacity determined under §§ 180.33 through 180.43, and horsepower capacity determined under § 180.53.

(b) Any boat the construction or assembly of which begins before August 1, 1973, may have displayed thereon a persons capacity greater than P_2 but not greater than P_1 in §§ 180.39 through 180.43 if the boat displays at least two

stability warning labels prescribed in paragraph (c) of this section.

(c) Each of the stability warning labels required by paragraph (b) of this section must—

(1) Be waterproof;

(2) Be displayed at normal boarding positions; and

(3) Have a plan view of the boat and the words in block letters in the sizes shown in figure 180.23 in colors that contrast with the background of the label.

Figure 180.23

§ 180.25 Display of markings.

(a) Each marking required by § 180.23 (a) must be permanently displayed in a legible manner where it is clearly visible to the operator when he is getting the boat underway.

(b) The information required to be marked by § 180.23(a) must be displayed in the following manner—

(1) For outboard boats:

U.S. Coast Guard Capacity Information

Maximum horsepower xxx
Maximum number of persons xxx
Maximum weight in pounds (persons, motor, and gear) xxx

(2) For inboard boats, inboard-outdrive boats, and boats without mechanical propulsion:

U.S. Coast Guard Capacity Information

Maximum number of persons xxx
Maximum weight in pounds (persons, and gear) xxx

§ 180.27 Construction of markings.

Each marking required by § 180.23(a) must be—

(a) Capable of withstanding the combined effects of exposure to water, oil, salt spray, direct sunlight, heat, cold, and wear expected in normal operation of the boat, without loss or deterioration of legibility; and

(b) Resistant to efforts to remove or alter the information without leaving some obvious sign of such efforts.

Subpart C—Safe Loading

§ 180.31 Applicability.

This subpart applies to mono-hull boats less than 20 feet in length except sailboats, canoes, kayaks, and inflatable boats.

§ 180.33 Maximum weight capacity: inboard and inboard-outdrive boats.

(a) The maximum weight capacity marked on a boat that has one or more inboard engines or inboard-outdrive units for propulsion must not exceed W in the formula.

$$W=\frac{\text{(Maximum displacement)}}{5}-\frac{\text{Boat weight}}{5}-\frac{\text{(Machinery weight)}}{5}$$

(b) For the purposes of paragraph (a) of this section—

(1) "Maximum displacement" is the weight of the volume of water displaced by the boat at its maximum level immersion in calm water without water coming aboard. For the purpose of this paragraph, a boat is level when it is transversely level and the points where the sheer intersects the stem and the stern (or transom) are equidistant above the water surface.

(2) "Boat weight" is the combined weight of the boat hull and all its permanent appurtenances, including machinery weight.

(3) "Machinery weight" is the combined weight of installed engines or motors, full fuel system and tanks, control equipment, drive units and batteries.

§ 180.35 Maximum weight capacity: outboard boats.

(a) The maximum weight capacity marked on a boat that is designed or intended to use one or more outboard motors for propulsion must be a number that does not exceed one-fifth of the difference between its maximum displacement and boat weight.

(b) For the purposes of paragraph (a) of this section—

(1) "Maximum displacement" is the weight of the volume of water displaced by the boat at its maximum level immersion in calm water without water coming aboard except for water coming through one opening in the motor well with its greatest dimension not over 3 inches for outboard motor controls or fuel lines. For the purpose of this paragraph, a boat is level when it is transversely level and the points at which the sheer intersects the stern and transom are equidistant above the water surface.

(2) "Boat weight" is the combined weight of the boat hull and all its permanent appurtenances. For the purpose of this paragraph, outboard motors are not permanent appurtenances.

§ 180.37 Maximum weight capacity: boats without mechanical propulsion.

(a) The maximum weight capacity marked on a boat that is not designed or intended to have mechanical propulsion must not exceed one-fifth of the difference between the boat's maximum displacement and the boat weight .

(b) For the purposes of paragraph (a) of this section—

(1) "Maximum displacement" is the weight of the volume of water displaced by the boat at its maximum level immersion in calm water without water coming aboard. For the purpose of this paragraph, a boat is level when it is transversely level and the points where the sheer intersects the stem and the stern (transom) are equidistant above the water surface.

(2) "Boat weight" is the combined weight of the boat hull and all its permanent appurtenances.

§ 180.39 Persons capacity: inboard and inboard-outdrive boats.

The persons capacity marked on a boat that is designed or intended to use one or more inboard engines or inboard-outdrive units must be a whole number that does not exceed the lesser of P_1 or P_2 in the following formulas:

(a)

$$P_1=\frac{\text{(Maximum weight capacity)}}{150}$$

where "Maximum weight capacity" is that marked on the boat.

(b)

$$P_2=\frac{\text{(Live load capacity)}}{150}$$

where "Live load capacity" is determined from the following test in calm water:

(1) Float the boat, with all its permanent appurtenances, including installed engines, full fuel system and tanks, control equipment, drive units and batteries.

(2) Gradually add weights along one outboard extremity of each passenger carrying area, at the height of the seat nearest the center of that area and distributed equally forward and aft of that center in a plane parallel to the floor boards, until the boat assumes the maximum list or trim, or both, without water coming aboard.

(3) Compute the live load capacity in the following formula:

$$\text{Live load capacity} = \frac{A}{.6}$$

where A is the total of the weights added in subparagraph (2) of this paragraph.

§ 180.41 Persons capacity: outboard boats.

The persons capacity marked on a boat that is designed or intended to use one or more outboard motors for propulsion must be a whole number that does not exceed the lesser of P_1 or P_2 in the following formulas:

(a)

$$P_1 = \frac{\text{(Maximum weight capacity)}}{150}$$

where "Maximum weight capacity" is that marked on the boat.

(b)

$$P_2 = \frac{\text{(Live load capacity)}}{150}$$

where "Live load capacity" is determined from the following test in calm water:

(1) Float the boat with all its permanent appurtenances.

(2) Add, in normal operating positions, the dry motor and control weight, battery weight and portable tank weight, if any, shown in table 180.67(a) for the maximum horsepower capacity marked on the boat. For permanently installed fuel tanks, add 6 pounds of weight for each gallon of fuel capacity.

(3) Gradually add weights along one outboard extremity of each passenger carrying area, at the height of the seat nearest the center of that area and distributed equally forward and aft of that center in a plane parallel to the floor boards until the boat assumes the maximum list or trim, or both, without water coming aboard.

(4) Compute the live load capacity in the following formula:

$$\text{Live load capacity} = \frac{A}{.6}$$

where A is the total of the weights added in subparagraph (3) of this paragraph.

§ 180.43 Persons capacity: boats without mechanical propulsion.

The persons capacity marked on a boat that is not designed or intended to have mechanical propulsion must be a whole number that does not exceed the lesser of P_1 or P_2 in the following formulas:

(a)

$$P_1 = \frac{\text{(Maximum weight capacity)}}{150}$$

where "Maximum weight capacity" is that marked on the boat.

(b)

$$P_2 = \frac{\text{(Live load capacity)}}{150}$$

where "Live load" is determined from the following test in calm waters:

(1) Float the boat, with all its permanent appurtenances.

(2) Gradually add weights along one outboard extremity of each passenger carrying area, at the height of the seat nearest the center of that area and distributed equally forward and aft of that center in a plane parallel to the floor boards until the boat assumes the maximum list or trim, or both, without water coming aboard.

(3) Compute the live load capacity in the following formula:

$$\text{Live load capacity} = \frac{A}{.6}$$

where A is the total of the weights added in subparagraph (2) of this paragraph.

Subpart D—Safe Powering

§ 180.51 Applicability.

This subpart applies to mono-hull boats less than 20 feet in length, except sailboats, canoes, kayaks, and inflatable boats, that are designed or intended to use one or more outboard motors for propulsion.

§ 180.53 Horsepower capacity.

The horsepower capacity marked on a boat, must be determined as follows:

(a) Compute a factor by multiplying the boat length in feet by the maximum transom width in feet including spray rails if spray rails act as chines or part of the planing surface. If the boat does not have a full transom, the transom width is the broadest beam in the aftermost quarter length of the boat.

(b) Locate horsepower capacity corresponding to the factor in table 180.53.

(c) If the horsepower capacity in table 180.53 is not an even multiple of 5, it may be raised to the next even multiple of 5.

(d) For flat bottom hard chine boats with a factor of 52 or less, the horsepower capacity must be reduced by one horsepower capacity increment in table 180.67(a).

TABLE 180.53—OUTBOARD BOAT HORSEPOWER CAPACITY

COMPUTE: FACTOR = BOAT LENGTH × TRANSOM WIDTH

If factor (nearest whole number) is	0–35	36–39	40–42	43–45	46–52
Horsepower capacity is	3	5	7½	10	15

NOTE: For flat bottom hard chine boats reduce one capacity increment (e.g. 5 to 3).

If factor is 53 or more and the boat has—	Remote steering and at least 20″ transom height	No remote steering, or less than 20″ transom	
		For flat bottom hard chine boats	For other boats
Horsepower capacity is (raise to nearest multiple of 5).	(2×Factor)−90	(0.5×Factor)−15	(0.8×Factor)−25

Subpart E—Flotation

§ 180.61 Applicability.

This subpart applies to mono-hull boats less than 20 feet in length, except sailboats, canoes, kayaks, and inflatable boats.

§ 180.63 Quantity of flotation required.

Each boat must have—

(a) At least that quantity of flotation prescribed in § 180.67; or

(b) Enough permanent flotation to keep any portion of the boat above the surface of the water when the boat is filled with water and loaded with—

(1) A weight that, when submerged, equals the persons capacity marked on the boat times 20 pounds; and

(2) A weight that, when submerged, equals 25 percent of the dead weight; and

(3) For outboard motorboats, a weight that, when submerged, equals the submerged motor and control weight from table 180.67(a).

(c) For the purpose of this section "dead weight" means—

(1) For outboard boats, the maximum weight capacity marked on the boat minus the sum of—

(i) Motor and control weight, and battery weight (dry) from table 180.67(a); and

(ii) 150 pounds times the persons capacity marked on the boat; and

(2) For inboard motorboats, the maximum weight capacity marked on the boat minus 150 pounds times the persons capacity marked on the boat.

§ 180.65 Kind of flotation.

(a) Except as provided in paragraph (b) of this section, the flotation required by § 180.63 must be inherently buoyant materials that are—

(1) Capable of withstanding the combined effects of contact with oil, oil products, or other liquids or compounds with which the material may be expected to come in contact during normal use, including fuel oil, gasoline, grease, lubricating oil, common bilge solvents, and salt and fresh water;

(2) Capable of withstanding combined exposure to sunlight, vibration, shock and temperature variations which may be expected during normal use; and

(3) Installed in such a manner that it is fully effective when the boat is flooded or capsized.

(b) If the construction or assembly of a boat is begun before August 1, 1973, it may have two or more air chambers that—

(1) Are completely watertight, except that pressure equalization openings may be provided if these openings are fitted with means to prevent water from entering the air chambers;

(2) Maintain their watertight integrity when the boat is flooded or capsized;

(3) Are designed and arranged so that the flooding of one chamber will not result in sufficient loss of buoyancy to cause

the boat to sink with its maximum weight capacity in normal operating position; and

(4) Are fitted with a means of being easily drained.

§ 180.67 Method for determining quantity of flotation.

The minimum quantity of flotation material required by § 180.63 must be determined by the following method:

(a) Step 1: Determine the Submerged Weight of Boat (W_s) in the formula:

$$W_s = Wh\,K_1 + Wd\,K_2 + 0.69\,We.$$

where

W_s = Submerged weight of boat.
Wh = Dry weight of hull.
Wd = Dry weight of deck and superstructure.
We = Dry weight of permanent appurtenances except motor and control weight, battery weight, and portable tank weight.
K_1 and K_2 = Conversion factors for materials used from table 180.67 (b).

(b) Step 2: Determine Submerged Weight of Engine and Related Equipment (G) as follows:

(1) For outboard boats, G equals the sum of the submerged motor and control weight, battery weight, and full fuel tank weight from table 180.67(a) for maximum horsepower capacity marked on the boat in accordance with § 180.53.

(2) For inboard boats G equals 75 percent of the installed weight of engine, drive, and fuel system.

(c) Step 3: Determine Dry Weight of Load (C) as follows:

(1) For outboard boats, C equals the maximum weight capacity as determined in § 180.35 minus the sum of dry motor and control weight, battery weight, and full fuel tank weight from table 180.67 (a).

(2) For inboard boats, C equals the maximum weight capacity as determined in § 180.33.

(d) Step 4: Determine Flotation Required (W) in the formula:

$$W = W_s \text{ (Step 1)} + G \text{ (Step 2)} + .25\,C \text{ (Step 3)}$$

(e) Step 5: Determine the Volume of Flotation Material (F) needed in the formula:

$$F = \frac{\text{Flotation Required (W)}}{\text{Buoyancy of Flotation Material}}$$

where: "Flotation Required" is that value of W determined in Step 4; and "Buoyancy of Flotation Material" is determined by subtracting from the density of fresh water the density of the flotation material. The density of the flotation material must be determined after the material immersed in fresh water for one-half hour. Where air chambers are used the "Buoyancy of Flotation Material" is 62.4 lbs./ft.³.

TABLE 180.67(a)

WEIGHTS OF OUTBOARD MOTOR AND RELATED EQUIPMENT FOR VARIOUS BOAT HORSEPOWER RATINGS

Boat horsepower rating	Motor and control weight		Battery weight		Full portable[2] fuel tank weight	
	Dry	Wet[1]	Dry	Wet[1]	Dry	Wet[1]
Under 4	35	20				
4.1- 5	55	34			25	−1
5.1- 10	70	55	20	11	50	−1
10.1- 30	105	86	45	25	50	−1
30.1- 50	190	138	45	25	100	−3
50.1- 75	240	163	45	25	100	−3
75.1-150	305	218	45	25	100	−3
TRANSOMS DESIGNED FOR TWIN MOTORS						
60.0-100	380	268	45	25	100	−3
100.1-150	480	328	45	25	100	−3
150.1-300	610	413	45	25	100	−3

[1] Wet in this case means submerged.
[2] If the boat has a permanent built-in fuel tank, the tank should be full for the test and the "Full Portable Fuel Tank Weight" excluded.

TABLE 180.67(b)

FACTORS FOR CONVERTING VARIOUS BOAT MATERIALS FROM DRY TO SUBMERGED WEIGHT

Material	Sp. Gr.	Factor
Steel	7.85	0.88
Aluminum	2.73	0.63
Fiberglas	1.50	0.33
A.B.S.	1.12	0.11
Oak	0.63	−0.56
Mahogany	0.56	−0.78
Ash	0.56	−0.78
Yellow Pine	0.55	−0.81
Fir Plywood	0.55	−0.81
Mahogany Plywood	0.54	−0.83
Royalex	0.50	−0.95
Cedar	0.33	−1.95
Balsa end gr	0.16	−5.24

This proposal is made under the authority of secs. 5, 7, and 39 of the Federal Boat Safety Act of 1971, Public Law 92–75, 85 Stat. 213, 215, 216, 228 (Aug. 10, 1971); 49 CFR 1.46(o)(1).

Dated April 17, 1972.

A. C. WAGNER,
Rear Admiral, U.S. Coast Guard,
Chief, Office of Boating Safety.

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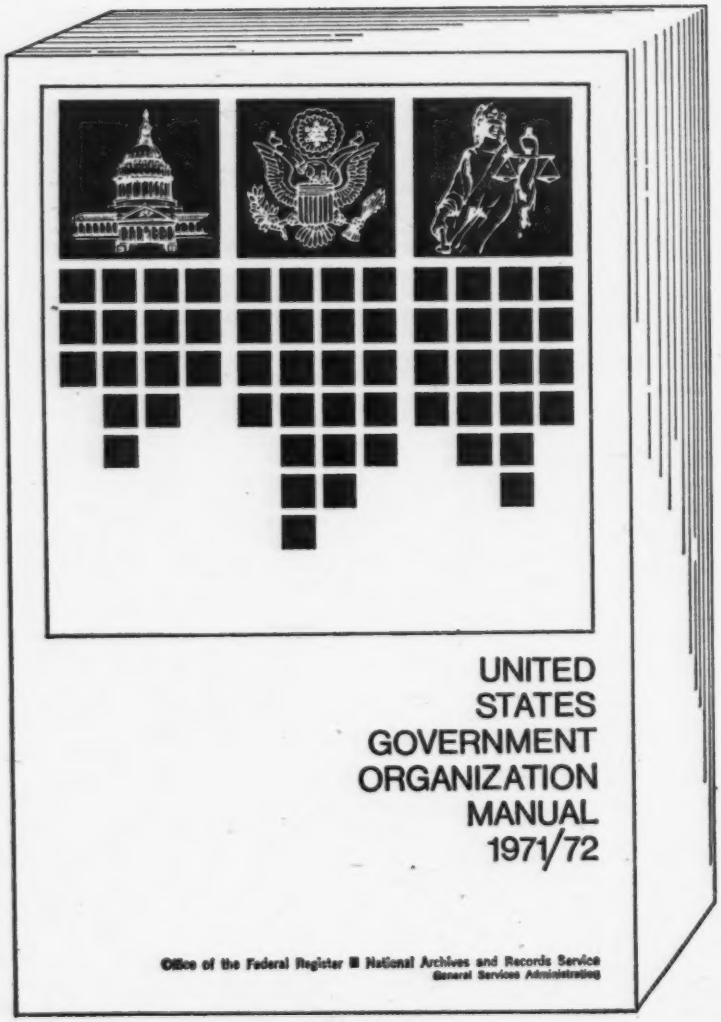

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